GEOMETRY · CLASSWORK

Use Geometric Definitions and Mathematical Properties to Draw Conclusions

SCORE / 25

01 Part A · Practice

Definitions (midpoint, bisector, supplementary...) and properties of equality and congruence justify each conclusion you draw.

EXAMPLE

$\angle 1$ and $\angle 2$ are supplementary and $m\angle 1 = 65°$. Find $m\angle 2$.

1. Definition of supplementary: $m\angle 1 + m\angle 2 = 180$.
2. Substitution: $65 + m\angle 2 = 180$.
3. Subtraction Property: $m\angle 2 = 115°$.

1 ●○○ $\angle 7$ and $\angle 2$ are supplementary, and $m\angle 7 = 133°$. What can you conclude about $m\angle 2$? What definition did you use?

2 ●○○ $m\angle M = 115°$, so $115° = m\angle M$. Which property is this?

3 ●○○ Which property justifies going from $5(x + 9) = 50$ to $5x + 45 = 50$?

4 ●○○ F is the midpoint of $\overline{WV}$ and $WF = 29$. What can you conclude? Name the definition.

5 ●○○ G is the midpoint of $\overline{TS}$ and $TG = 21$. What can you conclude? Name the definition.

6 ●○○ $m\angle X = 156°$, so $156° = m\angle X$. Which property is this?

© 2026 Math Teacher Prints · 1-6e Classwork · Regular

Preview - the full worksheet and its answer key are at primeworksheet.com